# OPINIONS AND DECLARATIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E. Secretary to the Commission

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### **OPINION 486**

Validation under the Plenary Powers as from Morris (1845) of the specific name *brachythaerus*, as published in the combination *Productus brachythaerus* and designation under the same Powers of the species so named to be the type species of the genus *Terrakea* Booker, 1930 (Class Brachiopoda)

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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(12th August 1953)
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r. Alden H. MILLER (Museum of Vertebrate Zoology, University of California, U.S.A.)

(29th October 1954)

Doc. Dr. Ferdinand Prantl (Národni Museum v Praze, Prague, Czechoslovakia) (30th October 1954)

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Professor Ernst Mayr (Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.) (4th December 1954)
Professor Enrico Tortonese (Museo di Storia Naturale "G. Doria," Genova, Italy)

(16th December 1954)

# **OPINION 486**

VALIDATION UNDER THE PLENARY POWERS AS FROM MORRIS (1845) OF THE SPECIFIC NAME "BRACHY-THAERUS", AS PUBLISHED IN THE COMBINATION "PRODUCTUS BRACHYTHAERUS" AND DESIGNATION UNDER THE SAME POWERS OF THE SPECIES SO NAMED TO BE THE TYPE SPECIES OF THE GENUS "TERRAKEA" BOOKER, 1930 (CLASS BRACHIOPODA)

**RULING**:—(1) The following action is hereby taken under the Plenary Powers:—

- (a) The under-mentioned specific names are hereby suppressed for the purposes both of the Law of Priority and of the Law of Homonymy:—
  - (i) brachythaerus Sowerby (G.B.), 1844, as published in the combination Producta brachythaerus;
  - (ii) brachythaerus, in combination with the generic name Productus or its variant spelling Producta, all uses of, subsequent to Sowerby (1844) and prior to Morris (1845).
- (b) The specific name *brachythaerus*, as published in the combination *Productus brachythaerus*, is hereby validated as from Morris (1845).
- (c) It is hereby directed that the nominal species *Productus brachythaerus* Morris, 1845, is to be interpreted by reference to the specimen (i) figured by Morris as fig. 4c on plate 14 *in* de

Strzelecki (P.E.), 1845, Physical Description of New South Wales and Van Diemen's Land and re-figured by Hill (D.), 1950, "The Productinae of the Artiskian Cracow Fauna of Queensland" Univ. Qld. Papers, Dept. Geol. 3(2): 19 and (ii) now preserved in the British Museum (Natural History), London, under the Registered Number BB.9466.

- (d) All type selections for the genus *Terrakea* Booker, 1930, made prior to the present Ruling are hereby set aside and the nominal species *Productus brachythaerus* Morris, 1845, as validated and interpreted under the Plenary Powers under (b) and (c) above, is hereby designated to be the type species of the above genus.
- (2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1225:—

Terrakea Booker, 1930 (gender: feminine) (type species, by designation under the Plenary Powers under (1)(d) above: Productus brachythaerus Morris, 1845, as validated and defined under the Plenary Powers in (1)(b) and (1)(c) above).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 1431:—

brachythaerus Morris, 1845, as published in the combination Productus brachythaerus, as validated under the Plenary Powers in (1)(b) and as interpreted under the same Powers in (1)(c) above (specific name of type species of Terrakea Booker, 1930).

(4) The under-mentioned specific names are hereby placed on the Official Index of Rejected and Invalid

Specific Names in Zoology with the Name Numbers severally specified below:—

- (a) brachythaerus Sowerby (G.B.), 1844, as published in the combination Producta brachythaerus, as suppressed under the Plenary Powers under (1)(a)(i) above (Name No. 469);
- (b) brachythaerus, in combination with the generic name Productus or its variant spelling Producta, all uses of subsequent to Sowerby (1844) and prior to Morris (1845), as suppressed under the Plenary Powers under (1)(a)(ii) above (Name No. 470).

## I. THE STATEMENT OF THE CASE

On 20th January 1954, Dr. W. G. H. Maxwell (Imperial College of Science and Technology, London) submitted to the International Commission on Zoological Nomenclature a preliminary application for the use of the Plenary Powers to define the nominal species Productus brachythaerus Sowerby (G.B.), 1844, by reference to the species figured by Morris under the above name in 1845. Dr. Dorothy Hill (University of Oueensland, Brisbane, Australia), who had previously been in correspondence with the Office of the Commission on this subject but had been unable to complete her investigations, had made available to Dr. Maxwell all the correspondence which she had in her possession relating to the present case. Following correspondence between Dr. Maxwell and the Secretary to the Commission, Dr. Maxwell on 15th June 1954 submitted the following revised application in which he asked for the suppression under the Plenary Powers of the specific name brachythaerus Sowerby, 1844, as published in the combination *Productus brachythaerus*, and for the validation of the same name as from Morris (1845) :—

Proposed use of the Plenary Powers to designate a type species in harmony with accustomed usage for "Terrakea" Booker (F.W.), 1930 (Class Brachiopoda), a genus based upon a misidentified type species and to validate the name currently used for the species so to be designated

By W. G. H. MAXWELL, BSc., Ph.D.

(Beit Scientific Research Fellow, Imperial College of Science and Technology, London)

It is the object of this application to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to suppress as a nomen dubium the specific name brachythaerus Sowerby (G.B.), 1844, as published in the combination Producta brachythaerus (in Darwin (C.R.), Geological Observations on the Volcanic Islands: 158), and to designate as the type species of Terrakea Booker (F.W.), 1930 ("A Review of some of the Permo-Carboniferous Productidae of New South Wales with a tentative reclassification" J. Proc. roy. Soc. N.S.W. 64: 66), the species figured as Productus brachythaerus by Morris in de Strzelecki (P.E.), 1845 ("Physical Description of New South Wales and Van Diemen's Land" pl. 14, fig. 4c). By so doing, the genus Terrakea Booker, 1930, and the species Productus brachythaerus Morris, 1845, will become available for use in their accustomed sense, and unnecessary confusion will be avoided. The particulars of the case are given below:—

2. Sowerby (G.B.), in Darwin, 1844 (: 158) described the species Producta brachythaeras nov., but gave no figures. He referred as follows to three specimens in the description:—"... it is in limestone, of the ordinary grey colour of mountain limestone. Another specimen, which I suppose to be an impression of the inside of the flat valve, is in stone, of a light rusty-brown colour. There is a third specimen, which I believe to be the impression of the inside of the deeper valve, in a nearly similar stone, accompanied by other shells." Only the second of these specimens is now extant. It is in the British Museum (Natural History). Buckman (R.), 1909 (in Etheridge (S.S.), Jr. and Dun (W.S.), "Notes on the Permo-Carboniferous Producti of Eastern Australia; with Synonymy", Rec. geol. Surv. N.S.W. 8(4): 298), Hill (D.), 1950 ("The Productinae of the Artinskian Cracow Fauna of Queensland" Univ. Qld. Papers, Dept. Geol. 3(2): 19) and the present author have identified the specimen B.19298 in the British Museum (Natural History) as probably being the second specimen mentioned by Sowerby in 1844 (: 158). It belongs to the genus Strophalosia King (W.), 1846, and may be conspecific with Strophalosia

jukesi Etheridge (R.), Jr., 1880. However, the specific identity of the other two specimens is unknown and there is no evidence to suggest that they were conspecific with specimen B.19298 discussed above.

- 3. Morris, 1845 (in de Strzelecki op. cit.: 284, pl. 14, figs. 4a—c) described and figured two specimens under the name Productus brachythaerus Sowerby. Some later authors have regarded these two specimens as belonging to separate species, others as variants of the one species. However, those workers who have examined both Morris's two specimens and Sowerby's only existing specimen are unanimous in their conclusion that they are not conspecific or even congeneric. Morris's specimens belong to the genus which Booker, 1930 (op. cit.: 66) described as Terrakea; the only existing specimen of Sowerby's belongs to Strophalosia King, 1846.
- 4. Subsequent authors have interpreted *Producta brachythaerus* Sowerby as being the same species as that shown as fig. 4c of Morris's plate 14. These authors include de Koninck (L.G.), 1877 (*Fossiles Paléozoiques de la Nouvelle-Galles du Sud* 3:198, pl. 10, figs. 4, 4a (err. pro 3, 3a)); Etheridge, Jr., 1880 ("On a collection of fossils from the Bowen River Coalfield and the limestone of the Fanning River, North Queensland", *Proc. roy. Phys. Soc. Edinb.* 5(7):284, pl. 8, fig. 16, pl. 9, figs. 17, 18); Jack (R.L.) and Etheridge, 1892 (*Geology and Palaeontology of Queensland and New Guinea*:248—252, pl. 12, figs. 10—13, pl. 13, fig. 5. pl. 44, fig. 14); Etheridge and Dun, 1909 ("Notes on the Permo-Carboniferous Producti of Eastern Australia; *with Synonymy*". *Rec. geol. Surv. N.S.W.* 8(4):293—300, pls. 42, 43); Booker, 1930 (*op. cit.*:66).
- 5. Hill, 1950 (op. cit.: 18), although distinguishing Sowerby's and Morris's species from one another, stated "I use Terrakea in Booker's sense for species congeneric with P. brachythaerus Morris, fig. 4c non Sowerby".
- 6. Booker, 1930 (: 66) erected the genus *Terrakea* nov., and designated as the type species "*Terrakea brachythaera* G. B. Sowerby, 1844 (sp.)". Booker had not seen Sowerby's specimens, and, following authors subsequent to Sowerby, 1844, he interpreted *Producta brachythaerus* on the species figured as 4c on plate 14 by Morris, 1845 (op. cit.).
- 7. Hill, 1950 (: 18—20) reviewed the problems associated with *Terrakea* and *Producta brachythaerus*, and concluded that under the *Règles*, *P. brachythaerus* ought to be interpreted on what is probably Sowerby's only extant specimen, which belongs to a species of *Strophalosia* King, 1846.

- 8. **Discussion:** At this point is is necessary to note that in his description of *Producta brachythaerus*, Sowerby, 1844 (*op. cit.*) referred to three specimens (see paragraph 1 above), but under Rule (e) in Article 30, only the first would have been eligible for selection as the lectotype, since doubt was expressed as to the identity of the other two specimens. The first specimen is now lost, and Sowerby's original description is insufficient to indicate whether its characters were those of *Strophalosia* King, 1846, or those of *Terrakea* Booker, 1930. Consequently, *Producta brachythaerus* Sowerby, 1844 is a *nomen dubium*.
- 9. The name Terrakea Booker, 1930, has become firmly established in Australian literature and it is desirable that this usage should not be disturbed. All the difficulties in the present case would disappear if the name brachythaerus Sowerby, 1844, as published in the combination Producta brachythaerus were to be suppressed by the Commission under its Plenary Powers and the same name validated as from Morris, 1845 (: pl. 14, fig. 4c), the species so named being designated by the Commission as the type species of Terrakea Booker. A solution on these lines would moreover be in full harmony with the Directive given to the Commission by the Thirteenth International Congress of Zoology, Paris, 1948, under which the Commission is required to use its Plenary Powers to secure that, where a genus is based (as was Terrakea Booker) upon a misidentified type species, the type species of that genus shall be the species so intended by the original author of the generic name in question in cases where (as in the present instance) current usage is based upon the intention of that author and not upon the species actually cited by him when establishing the nominal genus concerned (see 1950, Bull. zool. Nomencl. 4: 158—159). This therefore is the action which I recommend that the Commission should take.
- 10. The proposal which is now submitted is that the International Commission should:—
  - (1) use its Plenary Powers :-
    - (a) to suppress for the purposes both of the Law of Priority and of the Law of Homonymy:—
      - (i) the specific name *brachythaerus* Sowerby (G.B.), 1844, as published in the combination *Producta brachythaerus*;
      - (ii) any uses of the specific name *brachythaerus* in combination with the generic name *Productus* or its variant spelling *Producta* subsequent to Sowerby, 1844, and prior to Morris, 1845;

- (b) to validate the specific name brachythaerus in the combination Productus brachythaerus as from Morris, 1845, the species so named to be interpreted by reference to the specimen (i) figured by Morris as fig. 4c on plate 14 in the paper referred to above and re-figured by Hill in 1950 (: pl. 2, fig. 1) and (ii) now preserved in the British Museum (Natural History) under the Registered Number BB.9466;
- (c) under the procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948, for determining the species to be accepted as the type species of a genus based upon a misidentified species, (i) to set aside all designations or selections of type species for the genus *Terrakea* Booker, 1930 (Class Brachiopoda) made prior to the Ruling now asked for and (ii), having done so, designate as the type species of the foregoing genus the nominal species *Productus brachythaerus* Morris, 1845, as validated and defined under the Plenary Powers under (b) above;
- (2) place the under-mentioned generic name on the Official List of Generic Names in Zoology:—Terrakea Booker, 1930 (gender: feminine) (type species, by designation under the Plenary Powers under (1)(c) above: Productus brachythaerus Morris, 1845, as validated and defined under the Plenary Powers under (1)(b) above;
- (3) place the under-mentioned specific name on the Official List of Specific Names in Zoology:—brachythaerus Morris, 1845, as published in the combination Productus brachythaerus, as validated under the Plenary Powers under (1)(b) above (specific name of type species of Terrakea Booker, 1930);
- (4) place the names and usages specified respectively in (1)(a)(i) and (1)(a)(ii) above, as there suppressed under the Plenary Powers, on the Official Index of Rejected and Invalid Specific Names in Zoology.

# II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application: Upon the receipt of Dr. Maxwell's preliminary communication the question of the

validation of the specific name *brachythaerus* Morris, 1845, as published in the combination *Productus brachythaerus*, was allotted the Registered Number Z.N.(S.) 438.

- 3. Publication of the present application: The present application was sent to the printer on 30th November 1955 and was published on 9th May 1956 in Part 11 of Volume 11 of the Bulletin of Zoological Nomenclature (Maxwell, 1956, Bull. zool. Nomencl. 11: 333—336).
- 4. Issue of Public Notices: Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, Bull. zool. Nomencl. 4:51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 9th May 1956 (a) in Part 11 of Volume 11 of the Bulletin of Zoological Nomenclature (the Part in which Dr. Maxwell's application was published) and (b) to the other prescribed serial publications. In addition such notice was given also to four general zoological serial publications and to three palaeontological serials in Europe and America.
- 5. Support received: The action recommended in this case was supported by two specialists when the present application was in course of preparation, namely:—(a) F. W. Booker (Geological Survey N.S. Wales, Sydney, N.S.W., Australia) (see paragraph 6 of the application reproduced in paragraph 1 of the present Opinion) and (b) Dr. Helen Muir-Wood (British Museum (Natural History), London). The communication from the latter specialist is reproduced in the immediately following paragraph.
- 6. Support received from Helen Muir-Wood (British Museum (Natural History), London): On 20th July 1955, Dr. Helen Muir-

Wood (British Museum (Natural History), London) addressed the following letter of support to the Office of the Commission:—

Terrakea Booker, 1930: I am publishing a note on this genus in my joint paper with Dr. G. A. Cooper probably in the Mem. Geol. Soc. Amer. next year. In this I have proposed the suppression of brachythaerus G. B. Sowerby, 1844, since we have no specimens we can with certainty relate to this. Sowerby did not figure his species and he apparently included more than one form in his description. The specimen in the Darwin collection which may possibly be one of those described by Sowerby belongs to the genus Strophalosia. It would, therefore, be best to suppress the species brachythaerus G. B. Sowerby, 1844, and validate the name as from Morris, 1845, as represented by Morris's figure 4c on plate 14. This specimen is preserved in the Strzelecki collection in our museum no. BB.9466. New South Wales. Hill, who refigured the specimen in 1950, Univ. Queensl. Paprs., Geol. 3, no. 2, pl. 2, fig. 1 said the locality was probably "Illawarra or Raymond Terrace, New South Wales". Labels on specimen, oval yellow ticket BB.9466, round green spot denoting figured specimen.

I therefore agree that the best course would be to validate the name *Productus brachythaerus* as from Morris (1845). If the species is to be interpreted by reference to this specimen and G. B. Sowerby's species is to be invalidated, this specimen (fig. 4c) will require to be the lectotype. The specimen figured as figs. 4a, b by Morris *in* Strzelecki is not congeneric with fig. 4c.

7. No objection received: No objection to the action proposed in the present case has been received from any source.

# III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

8. Issue of Voting Paper V.P.(56)43: On 30th November 1956 a Voting Paper (V.P.(56)43) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic name *Terrakea* Booker, 1930, as

set out in Points (1) to (4) in paragraph 10 on pages 335 and 336 of Volume 11 of the *Bulletin of Zoological Nomenclature*" [i.e. in the paragraph numbered as above in the paper reproduced in the first paragraph of the present *Opinion*].

- **9.** The Prescribed Voting Period: As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd March 1957.
- 10. Particulars of the Voting on Voting Paper V.P.(56)43: At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)43 was as follows:—
  - (a) Affirmative Votes had been given by the following twenty-four (24) Commissioners (arranged in the order in which Votes were received):

Boschma; Vokes; Hering; Mayr; Lemche; Holthuis; Prantl; Bonnet; Mertens; Bradley (J.C.); Bodenheimer; Dymond; Kühnelt; Riley; Sylvester-Bradley; Key; Esaki; Stoll; do Amaral; Cabrera; Tortonese; Hemming; Jaczewski; Miller;

(b) Negative Votes:

None;

(c) Prevented from Voting by interruption of postal communications consequent upon political disturbances, one (1):

Hankó;

(d) Voting Papers not returned:

None.

11. Declaration of Result of Vote: On 3rd March 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper

V.P.(56)43, signed a Certificate that the Votes cast were as set out in paragraph 10 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

- 12. Preparation of the Ruling given in the present "Opinion": On 24th June 1957, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(56)43.
- 13. Original References: The following are the original references for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion*:—
- brachythaerus, Producta, Sowerby (G.B.), 1844, in Darwin (C.R.), Geol. Observ. Volcanic Islands: 158
- brachythaerus, Productus, Morris, 1845, in de Strzelecki (P.E.), Phys. Descript. N.S. Wales and Van Diemen's Land: pl. 14, fig. 4c
- Terrakea Booker (F.W.), 1930, J. Proc. roy. Soc. N.S.W. 64:66.
- 14. Family-Group-Name Aspects: The family-group-name problems involved in the present case were not dealt with in the application submitted. It has, however, since been ascertained that the generic name *Terrakea* Booker, 1930, has not been taken as the base for a family-group name, the genus so named being currently placed in the family PRODUCTIDAE (oral communication received on 24th June 1957 from Dr. Helen Muir-Wood (*British Museum (Natural History)*, *London*)).
- 15. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission

by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

**16.** The present *Opinion* shall be known as *Opinion* Four Hundred and Eighty-Six (486) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Fourth day of June, Nineteen Hundred and Fifty-Seven.

Secretary to the International Commission on Zoological Nomenclature

FRANCIS HEMMING